

Description of a new muricopsine species (Gastropoda: Muricidae) from the Southwestern Indian Ocean

Descripción de una nueva especie de muricopsine (Gastropoda: Muricidae) del suroeste del Océano Índico

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ABSTRACT

Favartia marianae n. sp. is described from Zululand, South Africa with range extension to South Mozambique. It is compared with *Favartia maculata* (Reeve, 1845), *F. cecalupoi* Bozzetti, 1993, *F. jeanae* Bertsch and D'Attilio, 1980, and *F. conleyi* Houart, 1999. *Murex mundus* Reeve, 1849 is here proposed as a *nomen dubium*.

RESUMEN

Se describe *Favartia marianae* spec. nov. de Zululand, Suráfrica con una distribución hasta el sur de Mozambique. La nueva especie se compara con *Favartia maculata* (Reeve, 1845), *F. cecalupoi* Bozzetti, 1993, *F. jeanae* Bertsch and D'Attilio, 1980, and *F. conleyi* Houart, 1999. Se propone que el taxon *Murex mundus* Reeve, 1849 sea considerado *nomen dubium*.

KEY WORDS: Gastropoda, Muricidae, Muricopsinae, Southwestern Indian Ocean, *Favartia* n. sp.

PALABRAS CLAVE: Gastropoda, Muricidae, Muricopsinae, suroeste del Océano Índico, *Favartia* spec. nov.

INTRODUCTION

Since both reviews of Muricidae by FAIR (1976) and by RADWIN and D'ATTILIO (1976), several muricids from Zululand (South Africa) and Mozambique have been described by VOKES (1978), HOUART (1986, 1990, 1994, 1995, 1998, 1999) and by PONDER and VOKES (1988). Other new discoveries have also extended the geographical distribution of many species originally known from South Africa or from other localities throughout the Indian Ocean, to Mozambique (unpublished).

Another small muricid species occurring off Zululand and Mozambique, sent to me for identification,

remained unidentified in one of my drawers for a couple of years. New material obtained recently allowed a better comparison with other species and has led to its description as a new species.

Abbreviations:

BM (NH): Natural History Museum, London, U.K.

IRSNB: Institut royal des Sciences naturelles de Belgique, Bruxelles, Belgium.

MNHN: Muséum national d'Histoire naturelle, Paris, France.

Table I. Terminology employed in the present paper with acronyms used in the descriptions (after MERLE, 2001); see Figures 1-3.

Tabla I. Terminología empleada en el presente trabajo con los acrónimos utilizados en las descripciones (según MERLE, 2001); véanse las Figuras 1-3.

| | |
|--|--|
| SHOULDER | |
| IP | intrasutural primary cord (primary cord on shoulder) |
| adis | adapical intrasutural secondary cord (adapical to IP) |
| abis | abapical intrasutural secondary cord (abapical to IP-between IP and P1-) |
| CONVEX PART OF THE TELEOCONCH WHORL AND SIPHONAL CANAL | |
| P1 | shoulder primary cord |
| P2-P6 | primary cords of convex part of teleoconch whorl |
| s1-s6 | secondary cords |
| tad | tertiary adapical cord |
| tab | tertiary abapical cord |
| ADP | adapical siphonal primary cord |
| MP | median siphonal primary cord |
| APERTURE | |
| ID | intrasutural denticle |
| D1-D5 | denticles of the convex part of the teleoconch whorl |

NM: Natal Museum, Pietermaritzburg, South Africa.
Terminology: full list given in Figures 1-3 and Table I.

The acronyms are occasionally put between parentheses, meaning that the character was observed in a few cases but not in all specimens.

SYSTEMATICS

Family MURICIDAE Rafinesque, 1815
Subfamily MURICOPSINAE Radwin and D'Attilio, 1971
Genus *Favartia* Jousseau, 1880

Type species, by original designation: *Murex breviculus* Sowerby, 1834, Recent, Indo-West Pacific.

Favartia marianae n. sp. (Figs. 1, 5-8)

Type material: South Africa, N Zululand, off Jesser Point, 27°35.0' S, 32°41.8' E, 70 m, dredged Meiring Naudé, 9.VI.87, holotype NMSA D8542/T1937.

Paratypes: South Mozambique, between Quissico and Zavora Point, 90-120 m, 2 C.P. Fernandes; 85-95 m, 1 R. Houart; 75-145 m, 1 Institut royal des Sciences naturelles de Belgique IG 29829/515; 1 MNHN; 2 J. Rosado, 3 R. Houart.

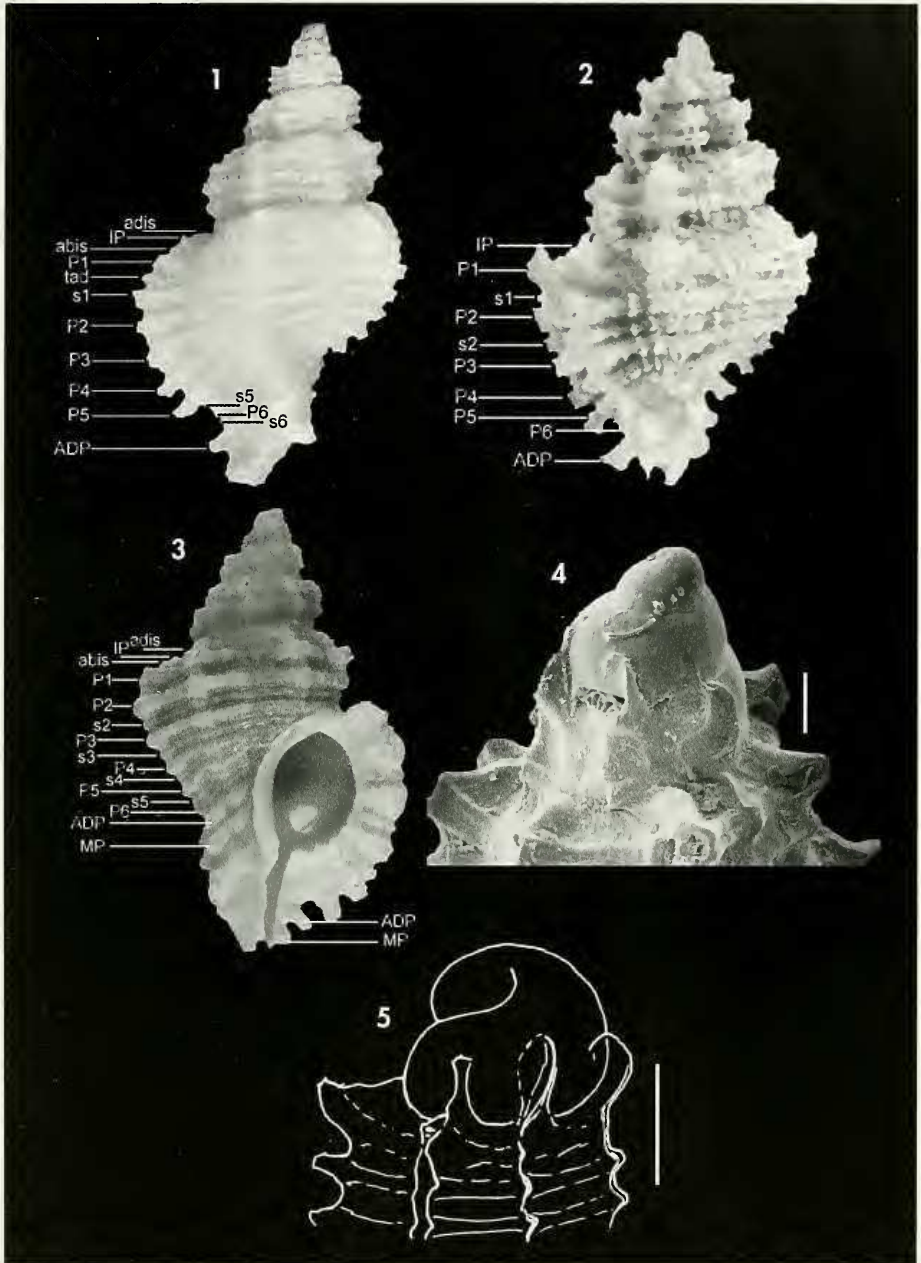
Type locality: South Africa, N Zululand, off Jesser Point, 27°35.0' S, 32°41.8' E, 70 m.

Distribution: North Zululand (South Africa) to South Mozambique, living at 70-90 m.

Etymology: This new species is named for Mariana, granddaughter of César P. Fernandes (Cascais, Portugal).

Description: Shell small for the genus, up to 11.17 mm in length (paratype C.P. Fernandes) (holotype 7.15 mm), lanceo-

late, lightly spinose. Spire high with 1.25-1.5 protoconch whorls (1.5 whorls in holotype) and up to 5 convex, weakly



Figures 1-3. Spiral sculpture. 1: *Favartia marianae* n.sp.; 2: *F. conleyi* Houart, 1999; 3: *F. cecalupoi* Bozzetti, 1993. Figures 4, 5. Protoconchs. 4: *F. jeanae* Bertsch and D'Attilio, 1980, Sulu Sea, Philippine Islands. Coll. R. Houart. Scale bar: 0.2 mm; 5: *F. marianae* n.sp., South Mozambique, between Quissico and Zavora Point, 90-120 m, paratype coll. R. Houart. Scale bar: 0.5 mm.
 Figuras 1-3. Escultura espiral. 1: *Favartia marianae* spec. nov.; 2: *F. conleyi* Houart, 1999; 3: *F. cecalupoi* Bozzetti, 1993. Figuras 4, 5. Protoconchas. 4: *F. jeanae* Bertsch y D'Attilio, 1980, Sulu Sea, Philippine Islands. Coll. R. Houart. Escala gráfica: 0,2 mm; 5: *F. marianae* n.sp., South Mozambique, entre Quissico y Zavora Point, 90-120 m, paratipo coll. R. Houart. Escala gráfica: 0,5 mm.

shouldered teleoconch whorls. Suture impressed. Protoconch large and broad; whorls rounded, smooth, glossy; terminal varix thin, raised, weakly curved.

Axial sculpture of teleoconch whorls consisting of moderately high, weakly spinose varices, each with short, broad, primary and secondary spines. First whorl with 6 or 7 varices (7 in holotype), 7 on second, 7 or 8 on third (8 in holotype), 6-8 on penultimate (6 in holotype), 5 on last whorl. Other axial sculpture of low growth lamellae, forming small scales on spiral cords.

Spiral sculpture of strong, low, weakly squamose cords. First whorl with visible P1-P2, occasionally starting s1, second with P1, s1, P2, third and fourth with adis, IP, abis, P1, s1, P2, P3 (P3 partly covered by next whorl), last whorl with adis, IP, abis, P1, (tad), s1, (tab), P2, P3, P4, P5, s5, P6, s6, ADP, (MP). P1-P5, s1, and ADP ending as short open spines on axial varices; s1 similar to primary cords; P6 strongly reduced.

Aperture small, broadly ovate. Columellar lip narrow, flaring, smooth, occasionally with a small narrow knob abapically, rim partially erect, adherent at adapical extremity. Anal notch shallow, broad. Outer apertural lip weakly erect with weak denticles

within: ID obsolete or very shallow, D1-D5 increasing in strength abapically.

Siphonal canal short, broad, dorsally bent at tip, open.

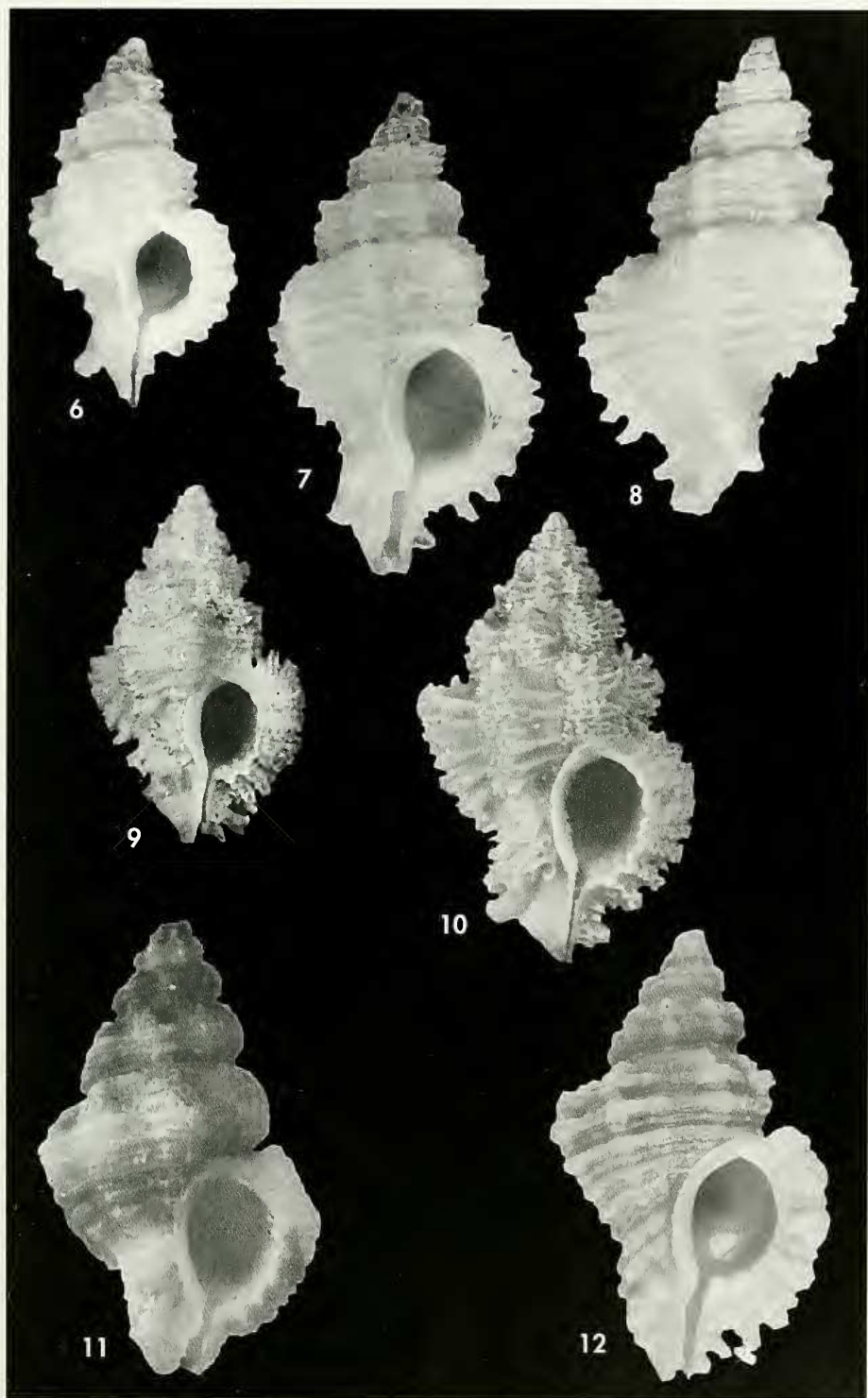
Shell white, salmon or light orange, axial ribs and siphonal canal paler in coloured specimens; inside of aperture white, light pink or light salmon. Operculum and radula unknown.

Remarks: *Favartia maculata* (Reeve, 1845) (Figs. 9-11), known from throughout the Indo-Pacific, differs in having more indented whorls and a different spiral sculpture morphology, the last teleoconch whorl of *F. maculata* having P1 and P2 never separated by a strong s1; however the presence of a more or less high s2 is observed in some specimens. The convex part of the last teleoconch whorl of *F. maculata* usually having following sculpture: P1, P2, (s2), P3, (s3), P4, P5 (P6 absent or strongly reduced). Moreover, the protoconch of *F. maculata* is conical with 3.5 whorls and a sinusigera type terminal varix.

F. cecalupoi Bozzetti, 1993 (Figs. 3,12) has a broader last teleoconch whorl compared to the previous whorls, lower axial ribs, stronger primary spiral cords, and a broader aperture. It also differs in having higher, almost similar P1-P5. The spiral sculpture morphology of the last teleoconch whorl in *F. cecalupoi* being: adis, IP,

(Right page) Figures 6-8. *Favartia marianae* n.sp.; 6: from South Africa, N. Zululand: off Jesser Point, 27°35.0' S, 32°41.8' E, 70 m, holotype NM D8542/ T1937, 7.15 mm; 7-8: Mozambique, between Quissico and Zavora Point, 90-120 m, paratype coll. C.P. Fernandes, 11.17 mm. Figures 9-11. *Favartia maculata* (Reeve, 1845). 9: Holotype of *Murex salmonea* Melvill and Standen, 1899, Torres Strait, Queensland, Australia, BM (NH) 1899.2.23.24, 12 mm; 10: shell from South Africa, N Zululand, off Kosi River Mouth, 26°53.9' S, 32°55.5' E, 50 m, NM D6855, 18.9 mm; 11: syntype of *Murex maculatus* Reeve, 1845, unknown locality, BM (NH) 1972020, 16.1 mm. Figure 12. *Favartia cecalupoi* Bozzetti, 1993, off Ras Hafun, 150 km south of Guarda Fadui, Northeastern Somalia, 200-250 m, holotype IRSNB 27882/455, 14 mm.

(Página derecha) Figuras 6-8. *Favartia marianae* spec. nov.; 6: de Suráfrica, N. Zululand: fuera de Jesser Point, 27°35.0' S, 32°41.8' E, 70 m, holotipo NM D8542/ T1937, 7,15 mm; 7-8: Mozambique, entre Quissico y Zavora Point, 90-120 m, paratipo col. C.P. Fernandes, 11,17 mm. Figuras 9-11. *Favartia maculata* (Reeve, 1845). 9: holotipo de *Murex salmonea* Melvill y Standen, 1899, Torres Strait, Queensland, Australia, BM (NH) 1899.2.23.24, 12 mm; 10: concha de South Africa, N Zululand, fuera de Kosi River Mouth, 26°53,9' S, 32°55,5' E, 50 m, NM D6855, 18,9 mm; 11: sintipo de *Murex maculatus* Reeve, 1845, localidad desconocida, BM (NH) 1972020, 16,1 mm. Figura 12. *Favartia cecalupoi* Bozzetti, 1993, fuera de Ras Hafun, 150 km al sur de Guarda Fadui, nordeste de Somalia, 200-250 m, holotipo IRSNB 27882/455, 14 mm.



abis, P1, P2, (s2), P3, (s3), P4, (s4), P5, P6 (reduced or absent), ADP, MP.

F. jeanae Bertsch and D'Attilio, 1980 (Figs. 4, 13-15) is more slender with a higher spire, stronger axial ribs, and conical multispiral protoconch consisting of 3-3.5 whorls, ending with a sinusigeral type terminal varix (Fig. 4). *F. jeanae* resembles species currently included in *Caribiella* Perriliat, 1972 from Tropical America. However, I am of the opinion that both taxa, *Favartia* and *Caribiella*, are congeneric.

F. conleyi Houart, 1999 (Figs. 2, 17-19) described from Guam but also occurring in New Caledonia and the Society Islands, differs in having a shell with more shouldered whorls, more squamose spiral cords, and a shorter siphonal canal, strongly recurved at tip. *F. conleyi* also has a different spiral

sculpture morphology in having IP, P1-P5, (P6), ADP. Last whorl occasionally with narrow s1 and s2; IP, P1-P5 and ADP strong, high; P6 reduced or absent.

The holotype of *Murex mundus* Reeve, 1849 [new name for *M. exiguus* Reeve, 1849 (not Broderip, 1833)] also resembles the new species. Although this unique type specimen can easily be ascribed to the genus *Favartia*, it is beachworn, probably subadult, and lacks the protoconch and the first teleoconch whorl. The actual identity of *Favartia munda* (Reeve, 1849) remains thus uncertain - it has been considered a synonym of *F. pelepili* D'Attilio and Bertsch, 1980 by VOKES (1985) - and is here maintained as a *nomen dubium*. I cannot apply to the new species that is not known from the intensively explored Philippines.

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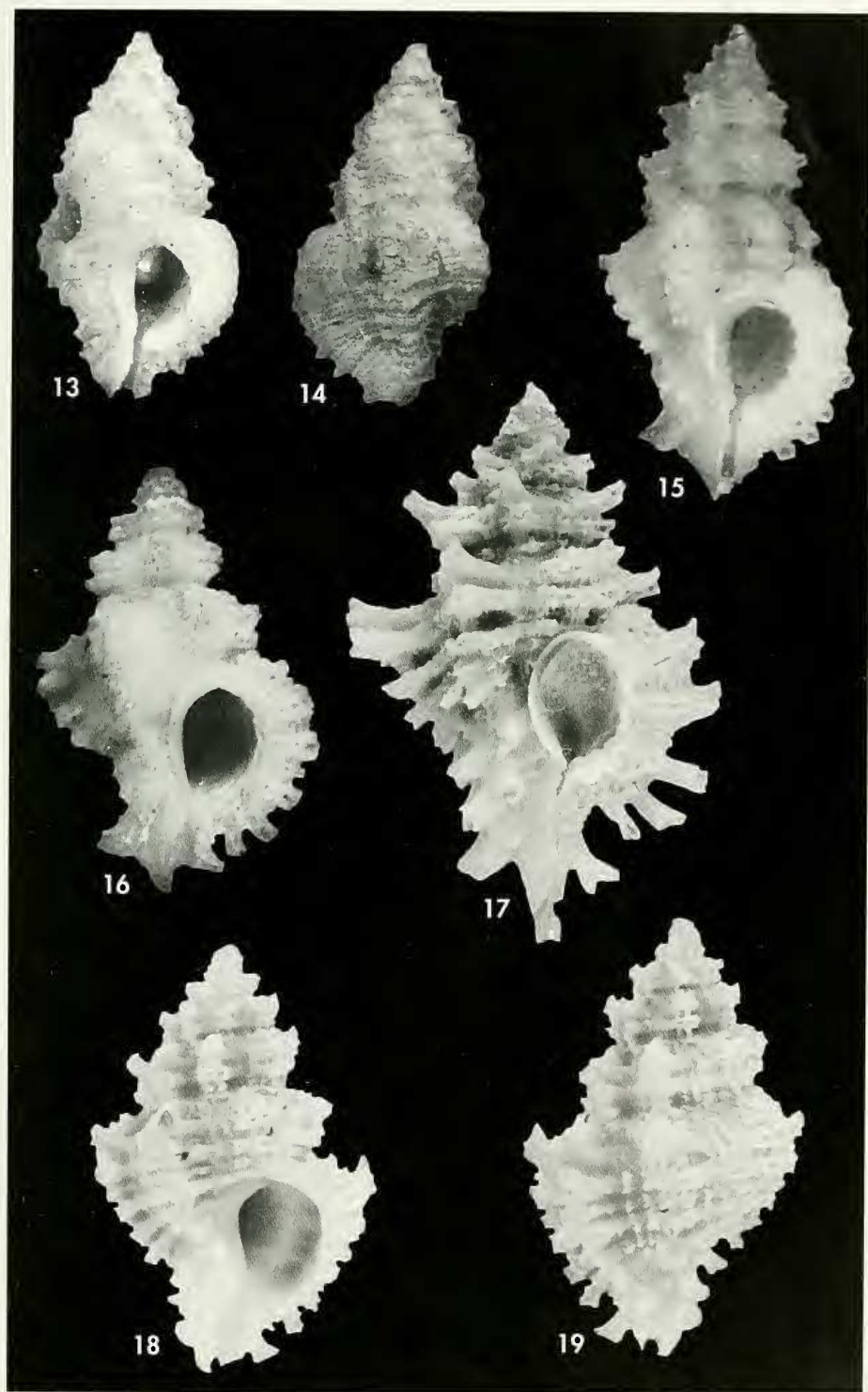
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(Right page) Figures 13-15. *Favartia jeanae* Bertsch and D'Attilio, 1980. 13, 14: Holotype of *Murex pumilus* A. Adams, 1853 (not *M. pumilus* Broderip, 1833), China Seas, holotype BM (NH) 197466, 8.1 mm; 15: shell from Philippine Islands, Cebu, Punta Engaño, 110 m, coll. R. Houart, 9 mm. Figure 16. *Murex mundus* Reeve, 1849, Philippine Islands, holotype BM (NH) 1972018, 11 mm. Figures 17-19. *Favartia conleyi* Houart, 1999. 17: Guam, Pity Lagoon, among silty dead coral, 1.5-2.5 m, holotype MNHN, 15.2 mm; 18-19: New Caledonia, 19°08' S, 163°29' E, 65-120 m, MNHN, 11.9 mm.

(Página derecha) Figuras 13-15. *Favartia jeanae* Bertsch and D'Attilio, 1980. 13, 14: holotipo de *Murex pumilus* A. Adams, 1853 (not *M. pumilus* Broderip, 1833), mares de China, holotipo BM (NH) 197466, 8,1 mm; 15: concha de Islas Filipinas, Cebu, Punta Engaño, 110 m, col. R. Houart, 9 mm. Figura 16. *Murex mundus* Reeve, 1849, Islas Filipinas, holotipo BM (NH) 1972018, 11 mm. Figuras 17-19. *Favartia conleyi* Houart, 1999. 17: Guam, Pity Lagoon, entre sedimentos de coral muerto, 1,5-2,5 m, holotipo MNHN, 15,2 mm; 18-19: concha de Nueva Caledonia, 19°08' S, 163°29' E, 65-120 m, MNHN, 11,9 mm.



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